

Stat 479
Fall 2009
Quiz 9
November 19, 2009

1. You have the following sample from a distribution:

6, 6, 8, 10, 10, 10, 14, 14, 16, 19

Calculate the kernel density estimate of $F(10.5)$, using a uniform kernel with bandwidth of 3.

2. You are given the following information from an insurance company:

Life	Date of Entry	Date of Exit	Reason for Exit
1	0	4	End of Study
2	0	0.5	Lapse
3	0	1.0	Death
4	0	4	End of Study
5	1	4	End of Study
6	1.2	2.0	Lapse
7	1.5	2.0	Lapse
8	2.0	3.0	Death
9	2.5	4	End of Study
10	3.1	3.2	Lapse

A four year **lapse** study is completed on this data.

Use the Kaplan-Meier product-limit estimator to estimate $S_{10}(3)$.

Use the Greenwood approximation to estimate the variance of $S_{10}(3)$.